Appln. No. 09/862,766
Amendment dated December 12, 2005
Reply to Office Action mailed October 18, 2005

REMARKS

Reconsideration is respectfully requested.

Claims 1 through 19 and 21 through 24 remain in this application.

Claim 20 has previously been cancelled. No claims have been withdrawn or added.

Claim 18 has been amended to correct an omission of punctuation which is not believed to alter the scope of the claim in any way.

Claims 1 through 19 and 21 through 24 have been finally rejected under 35 U.S.C. §103(a) as being unpatentable over Mauney et al. (US 5,659,156) in view of PCT Application No. WO 00/75924 of Woo (hereinafter referred to as "Woo").

As noted in the previous response, claim 1 requires "an ear module formed to be entirely supported by an ear". Claim 4 requires "an ear module formed to be entirely supported by an ear". Claim 9 requires "an ear module formed to be entirely supported by an ear". This relationship, which is evidenced by the Figures of the drawings, permits the ear module to be worn without requiring other contact or connections with the body of the wearer.

The rejection of the claims is now based upon the allegedly obvious combination of the device of the Mauney patent with selected aspects of the device of the Woo application. It is alleged that:

Mauney et al disclose an ear molds for holding communication devices within the ear in a secure and comfortable manner. Fig 3 shows the left ear mold 301 with an audio communication device 302 installed (col. 4, lines 54-64).

However, the Mauney patent discusses a hearing aid (described in the patent as a (two-way communication device") that includes both a microphone for

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detecting ambient sounds and a speaker for reproducing the detected sounds.

The Mauney patent states at col. 4, lines 54 through 64, that:

FIG. 3 shows the left earmold 301 with an audio communications device 302 installed. In this instance, the audio communications device is a device available from JABRA Corporation of San Diego, Calif. which is marketed under the trademark Ear PHONE.TM.. Also apparent from FIG. 3 is the size of the particular earphone. The alignment mark 303 is depicted and the power cord 304 for the earphone is shown. The notch 305 to the ear canal, the helix 306, the lower lobe 307, the bottom 308, and the antitragus notch 309 are shown.

Mauney makes it clear that the "audio communications device" is a microphone and a speaker, as noted at col. 3, lines 14 through 15:

In the preferred embodiment, the audio communications device includes both a microphone and a speaker.

The Mauney patent furthers describes the "audio communication device" at col. 3, lines 54 through 56 and col. 4, lines 22 through 24, where it is stated that:

A cavity or receptacle 203 is provided to accommodate an earphone with a speaker, microphone and relevant circuitry.

That the Mauney device provides a "hearing aid" function is made evident at col. 1, lines 34 through 38, in the Summary of the Invention:

It is an object of this invention to provide an earmold device to hold a two-way communications device in the ear. The invented earmold accommodates both a speaker and a microphone and provides high quality sound transmission.

The Summary of the Invention further states at col. 2, lines 7 through 12 that:

Another difference between the invention and the prior art is that the invented earmold utilizes a design specifically for use with two-way communications devices. The earmold is designed to house both a speaker and a microphone and to receive and transmit sound in a high quality manner to achieve useful two-way communication.

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These statements in the Mauney patent makes it particularly clear to one of ordinary skill in the art that the Mauney device is directed to a device that merely detects and reproduces the detected sound.

It appears to be conceded in the Office Action that the Mauney device is limited in function, as it is alleged in the rejection that:

Mauney et al disclose the claimed invention except for the components such as memory for storing digitized audio and a player.

It is then contended in the rejection that the Woo application makes up for the defects in the Mauney patent:

PCT, WO 00/75924, disclose a portable audio player suitable for use for an MP3 player. The audio player comprises of an ear module (4) to be supported by an ear (Fig 3). The module includes a speaker (130), a memory for storing digitized audio (F), a D/A converter (120), and micro processor (100) (Fig 6) (page 5, lines 18-25, page 7, lines 16-21).

The alleged motivation for this combination between the device of the Mauney patent and the selected features of the Woo application is also set forth in the rejection of the Office Action:

It would have been obvious to one of ordinary skill in the art to use the portable audio player as disclosed in the PCT '924, in the ear mold of Mauney et al in order to have the ear module entirely supported by an ear, wherein the ear module being free of any other structure providing support on the body of a user when supported on the ear (as claimed in new claims 22-24).

However, since the Mauney device is already allegedly "entirely supported by an ear", it is not understood why one of ordinary skill in the art would look to the Woo application for any modification of the Mauney device for such a purpose. Indeed, this statement appears to be more consistent with an obviousness rejection in which the Woo published application is considered to be the primary reference, and the Mauney patent is the secondary reference. However, as the rejection is stated, one of ordinary

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skill in the art, considering the Mauney patent would have allegedly found it obvious to modify the Woo device.

In any event, it is submitted that one of ordinary skill in the art would not have found it obvious to modify the Mauney device with the "a memory for storing digitized audio" and "a player coupled to the speaker, battery and memory that provides audio signals to the speaker based on the digitized audio". More particularly, the Mauney patent discusses a device that, as noted above, functions as a hearing aid by detecting environmental sounds through a microphone and reproducing those detected sounds through a speaker, presumably at a louder volume. Thus, the Mauney device has no need for "memory", as all sounds are reproduced substantially in real time so that the user is made aware of the sounds. Also, there would be no need for a player for playing sounds stored in the memory, as this would only interfere with the function of the hearing aid of Mauney. Further, nothing in the Mauney patent or Woo application suggests to one of ordinary skill in the art that a hearing aid would benefit from having a memory and a player of digitized audio. In fact, the added components could only make the Mauney device more bulky and difficult to mount in the manner described in the patent.

Further, as noted in the previous response, the cited Woo published PCT application clearly describes a device which is not only supported on both of the ears of the user, but also on the neck of the user. More specifically, the PCT application states at page 4, lines 10 through 14 (emphasis added):

In order to achieve the above object, an audio player according to the present invention comprises a main body disposed on the rear of the neck of a user; arms extended toward the ears of the user from the main body; ear phones disposed on the front ends of the arms and contacted with the ears of the user; and ear hooks hung on the ears of the user for the ear phones to be kept on the ears.

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Clearly, one of ordinary skill in the art understands from the Woo published PCT application that the audio player of Woo plays the audio as stereo sounds, with one channel being directed into each of the ears of the user. Thus, the Woo device requires a connection between the ear phones to deliver the signal to each of the ear phones. (Note that such a connection is not needed in the Mauney device, as each hearing aid would separately detect a distinct set of environmental sounds from the other hearing aid.) Thus, the Woo device is required to have the connection between the ear phones, and attempting to support the ear phones entirely on the ear, would be fruitless, and the connection between the earphones of Woo would inevitably rest against the body. Mauney does not disclose to one of ordinary skill in the art any way of connecting two ear pieces that would avoid contacting, and gaining support from, the body of the user, particularly the head of the user.

It is therefore submitted that one of ordinary skill in the art would not find it obvious to combine the device of the Mauney patent with the device of the Woo PCT application, and thus would not lead one of ordinary skill in the art to the applicant's claimed invention as defined in claims 1, 4, and 9, especially with the requirements set forth above, and therefore it is submitted that these claims are allowable over the prior art. Further, claims 2, 3, 5 through 8, and 10 through 13, which depend from these claims, also include the requirements discussed above and therefore are also submitted to be in condition for allowance.

Claims 14 and 16 each require "a connector adapted to connect to the audio player in a suspended relationship from the audio player" and "a memory coupled to the connector that stores digitized audio, the memory being suspended from the connector to suspend the memory from the audio player". Claim 18 requires "storing such digital format signals on a

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memory device" and "suspending the memory device from a digitized audio player entirely supported by an ear of a user of the player".

The rejection of the Office Action fails to identify any structure in either of the cited documents that would show the suspended relationship set forth in these claims, and it is submitted that neither of the cited documents discloses such as relationship.

In fact, in contrast to the requirements of these claims, the Woo PCT application discloses a flash memory device F that is inserted into the "main body" of the device that extends around the back of the head of the user. Clearly, this flash memory is not suspended in any manner, as it is positioned inside the relatively rigid strap of the main body. This point, made in the previous response, was not disputed in the final rejection.

It is therefore submitted that the Mauney patent and the Woo PCT application would not lead one of ordinary skill in the art to the applicant's claimed invention as defined in claims 14, 16 and 18, especially with the requirements set forth above, and therefore it is submitted that these claims are allowable over the prior art. Further, claims 15, 17, 19, and 21, which depend from these claims, also include the requirements discussed above and therefore are also submitted to be in condition for allowance.

Withdrawal of the §103(a) rejections of claims 1 through 19 and 21 is therefore respectfully requested.

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CONCLUSION

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In light of the foregoing amendments and remarks, early reconsideration and allowance of this application are most courteously solicited.

Respectfully submitted,

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